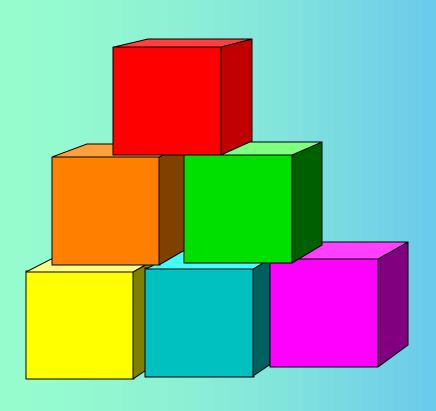
## Identifying Options & Determining Optimum Solutions



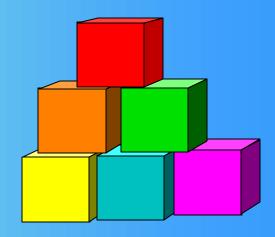
- Assess
- Define
- Identify
- Analyze
- Implement
- Evaluate

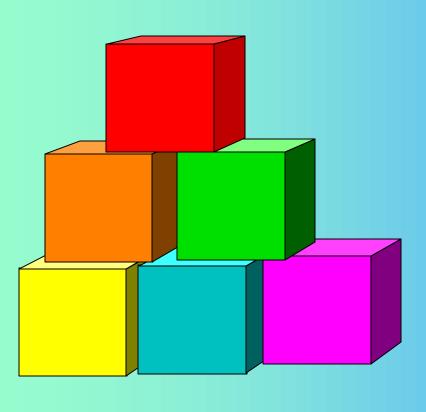
#### Simplified 6-Step Framework

#### Assess

- Internal -- strengths & weaknesses
  - Existing infrastructure
  - Technical, financial, & managerial capacity
- External challenges
  - New regulations
  - Treatment for compliance
  - Source water supply
  - Competition
- External opportunities
  - Partnerships
  - Source water protection
  - Financial resources
  - Public awareness

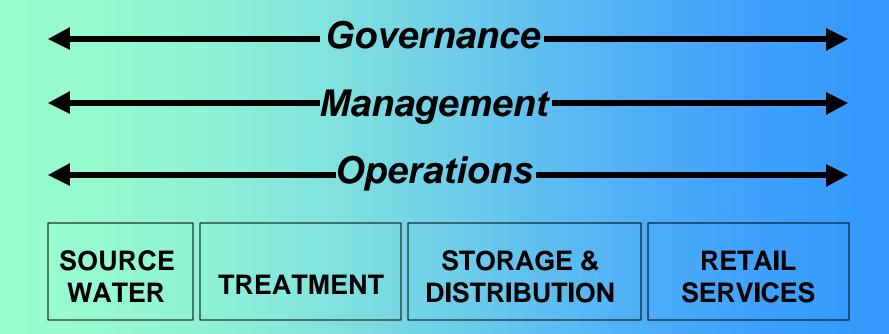
- Define
- Identify
- Analyze
- Implement
- Evaluate





- Assess
- Define
  - Service Horizon
- Identify
- Analyze
- Implement
- Evaluate

#### Define the Service Horizon

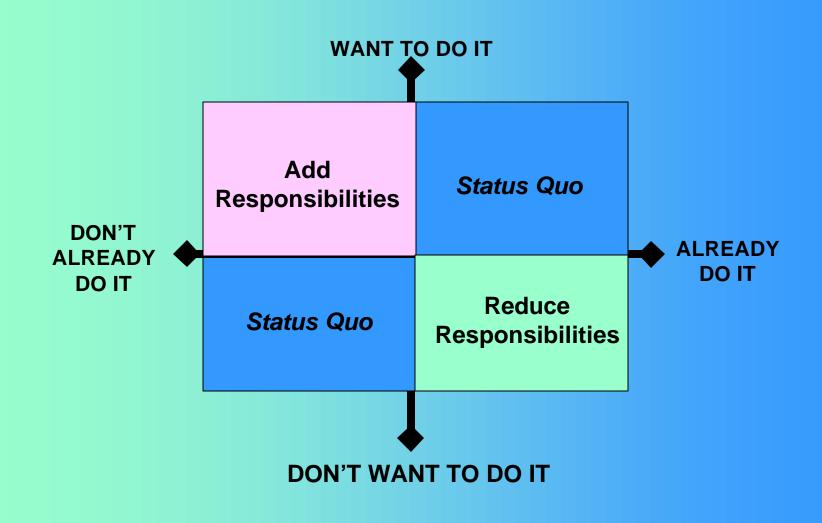


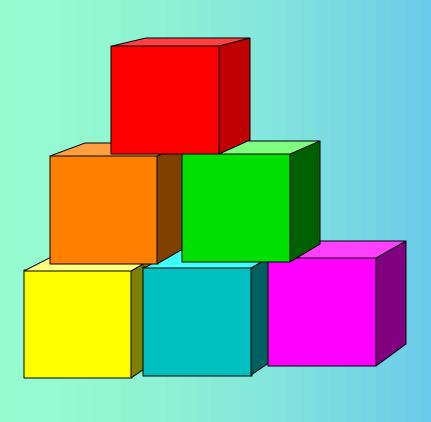
#### Service Horizon Matrix

	GOVERNANCE	MANAGEMENT	OPERATIONS
SOURCE			
TREATMENT			
STORAGE & DISTRIBUTION			
RETAIL SERVICES			

#### Defining the Service Horizon

### Framework for Filling in the Cells of the Service Horizon Matrix



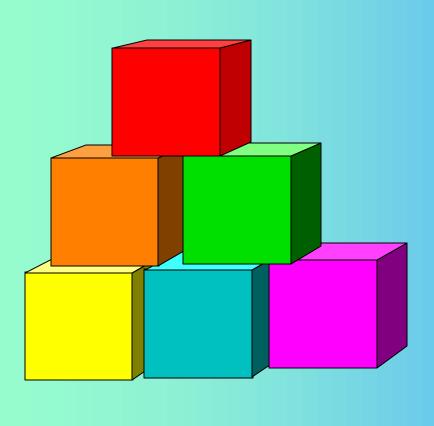


- Assess
- Define
- Identify
  - Options for FulfillingDesired ServiceHorizon
- Analyze
- Implement
- Evaluate





Technical, Financial, and Managerial Capacity



- Assess
- Define
- Identify
- Analyze
  - Identify"Optimum"Solution
- Implement
- Evaluate

#### **Optimum Relative To What?**

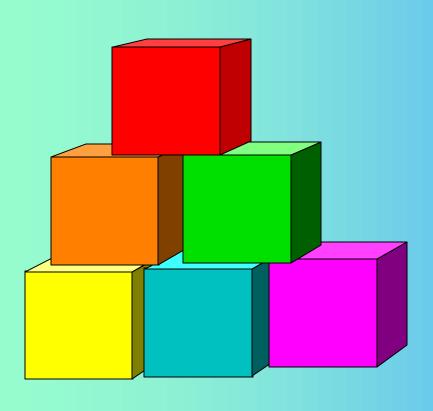
- Least Cost
- Political Acceptability
- Best Service
- Water Quality
- Economic Growth

Each System Is Unique -- One Criterion Does

Not Fit All -- Key Is To Ensure A Full

Understanding Of Tradeoffs & An Informed

Decision

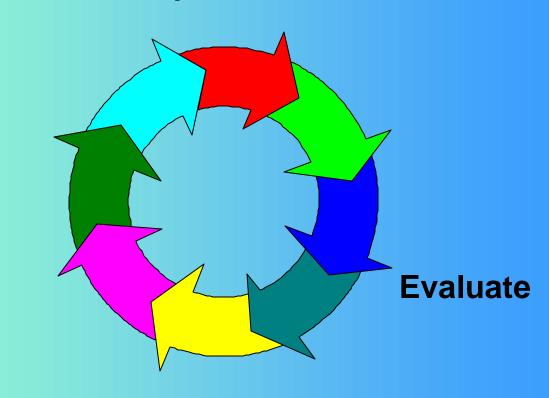


- Assess
- Define
- Identify
- Analyze
- Implement
- Evaluate

### Implement & Evaluate

#### Strategic Management

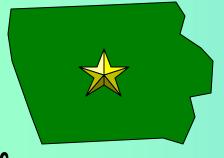
#### **Implement**



Revise

## CASE STUDY: Des Moines Water Works (DMWW)

- Municipal Utility
- Serves 350,000 people
- Provides "contract" services to 20 communities



- lowa Code § 28E
- 4 Basic levels of service offered
  - <u>Level 1</u> Special Projects
  - Level 2 Wholesale Water
  - <u>Level 3</u> Wholesale Water + Billing & Customer Service
  - Level 4 Total Service Contract

#### Town of Panora, IA & DMWW (Level 1)



- •Panora, IA
  - Serves 1,100 people
  - Surface Water
  - Exceeds Nitrate MCL
- Panora contracts with DMWW for:
  - Nitrate Study
  - Employee ClassificationSystem
  - Rate Study
- •DMWW charges fee based on time and materials

## Xenia, IA Rural Water District & DMWW (Level 2)



#### Xenia Rural Water District

- •Completed in 1983 served 700
- Today serves 5,000
- Treatment plant at capacity
- Purchasing water is least-cost solution to demand growth

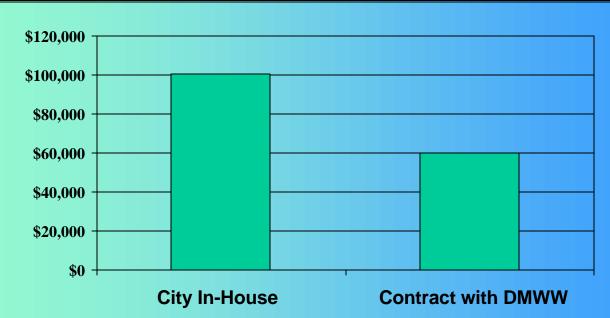
#### •DMWW

- One of 5 wholesale suppliers to Xenia
- Agreement includes:
  - Initial connection fee based on anticipated demand
  - Metered wholesale supply

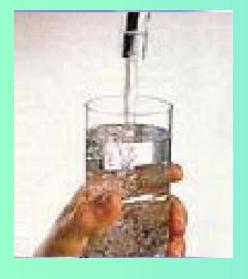
### City of Waukee, IA & DMWW (Level 3)

- City of Waukee provides water to 3,400 people
- City obtains wholesale treated water from DMWW
- City analyzed its in-house meter reading and billing operation
- •City determined that they could contract this function to DMWW and save 40%

Annual cost of meter reading and billing



## City of Windsor Heights, IA & DMWW (Level 4)



- City of Windsor Heights provides water to 5,000 people
- Since 1963 city has purchased entire supply wholesale from DMWW
- •In 1989, to streamline its operations, the city contracted with DMWW for "total service":
  - Water supply
  - Meter reading and billing
  - •Inspections, preventive maintenance, & repair
  - Annual engineering analysis
  - Automated mapping/facility management data
- City receives significantly better service for the same cost

#### Summary

- Assess system needs, external pressures, and internal capacity
- Define the "Service Horizon"
- Identify strategic options
- Analyze options and select the optimum
- Implement strategic plan
- Evaluate and revise strategic plan